

MATERIAL SAFETY DATA SHEET

DATE PREPARED: 06/05/1996

MSDS No: 5579

ORTHO® Multi-Purpose Fungicide DACTONIL 2787® Plant Disease Control

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ORTHO® Multi-Purpose Fungicide DACTONIL 2787® Plant Disease Control

PRODUCT DESCRIPTION: Fungicide

MANUFACTURER

The ORTHO Group
P.O. Box 1749
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24 HR. EMERGENCY TELEPHONE NUMBERS

Emergency Phone: 1-800-225-2883

EPA REG. NO.: 239-2522B **PN:** 6025-A

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt.%</u>	<u>CAS#</u>
Chlorothalonil	29.6	1897-45-6
INERT INGREDIENTS	~70.40	

"Inert Ingredients" is a term defined by the U.S. Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act (40 CFR 158.153). It refers to any substance, other than an active ingredient, which is intentionally added to a pesticide product. Some inert ingredients may be hazardous chemicals, as defined by the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200). The hazards associated with these inert ingredients have been included in this document.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Liquid suspension of gray particles

IMMEDIATE CONCERNS: - CAUSES EYE AND SKIN IRRITATION

- DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING

- MAY CAUSE A TEMPORARY ALLERGIC EYE OR SKIN REACTION

- MAY CAUSE A TEMPORARY ALLERGIC RESPIRATORY REACTION

- KEEP OUT OF REACH OF CHILDREN

POTENTIAL HEALTH EFFECTS

EYES: This substance causes eye irritation. May also cause a temporary allergic reaction characterized by redness and swelling of the eyes. Eye irritation may also include redness, swelling and discomfort, tearing and blurred vision.

SKIN: This substance causes skin irritation. This substance can cause a temporary allergic skin reaction in some individuals characterized by swelling, redness or rash on exposed skin areas..

INGESTION: Ingestion may cause irritation of the digestive tract. Digestive tract irritation may include nausea, vomiting, and diarrhea. If swallowed, this substance is considered practically non-toxic to internal organs.

INHALATION: Breathing spray mist may cause a temporary allergic respiratory response or mild bronchial irritation.

4. FIRST AID MEASURES

EYES: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

SKIN: If on skin or clothing, take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

INGESTION: If swallowed, call a poison control center or doctor immediately for treatment advice. Have person sip glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Never give anything by mouth to an unconscious person.

INHALATION: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: Nonflammable

EXTINGUISHING MEDIA: CO2, Dry Chemical, Foam, Water Fog.

HAZARDOUS COMBUSTION PRODUCTS: Normal combustion forms carbon dioxide, water vapor and may produce oxides of nitrogen. Combustion may produce toxic compounds of hydrogen chloride.

FIRE FIGHTING PROCEDURES: This material will not burn. Smoke from fires involving this material may present unusual hazards. Avoid breathing smoke and mists. Avoid contact with fallout and runoff. Minimize the amount of water used for fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Read the entire document.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Soak up spilled material with paper towels and discard in trash.

LARGE SPILL: Liquid spills on floor or other impervious surfaces should be contained or diked, and should be absorbed with attapulgate, bentonite or other absorbent clays. Collect contaminated absorbent, place in plastic-lined metal drum and dispose of in accordance with instructions provided under Section 13. "DISPOSAL". Thoroughly scrub floor or other impervious surface with a strong industrial type detergent solution and rinse with water.

For liquid spills that soak into the ground, contact the applicable Federal, State and or County Health Dept. for disposal recommendations. If disposal is required then refer to Section 13 "DISPOSAL" for instructions.

Leaking containers should be separated from non-leakers and either the container or its contents transferred to a drum or other non-leaking container and disposed of in accordance with instructions provided under Section 13 "Disposal". Any recovered spilled liquid should be similarly collected and disposed of.

Do not contaminate water, foodstuffs or feed by storage or disposal.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Avoid contamination of feed and foodstuffs. Store in a cool, dry place, preferably locked storage area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits (see below). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

PERSONAL PROTECTION

EYES AND FACE: Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment available.

For application of product in accordance with label instructions, no special eye protection is needed.

SKIN: Wear appropriate protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type of glove for given application. Wear face shield and chemical resistant clothing such as a rubber apron when splashing is likely. Wash contaminated skin promptly. Launder contaminated clothing and clean protective equipment before reuse. Wash thoroughly after handling.

Attention! Repeated or prolonged contact may cause an allergic skin reaction in some people.

RESPIRATORY: Avoid breathing vapor or mist. Use NIOSH/MSHA approved respiratory protection equipment (full facepiece recommended) when airborne exposure limits are exceeded (see below). If used, full facepiece replaces need for chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Respiratory protection programs must comply with 29 C.F.R. 1910.134.

Attention! Repeated or prolonged inhalation may cause an allergic respiratory reaction in some people.

For application of product in accordance with label instructions, no special respiratory protection is required.

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

Chemical Name	EXPOSURE LIMITS		
	OSHA PEL	ACGIH TLV	ACGIH STEL
Chlorothalonil	None	None	None
Propylene Glycol	None	None	None
Silica, amorphous	None	3 mg/m3	None
Calcium Silicate	5 mg/m3	10 mg/m3 Total	None

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

APPEARANCE: Light gray

pH: 6 to 8

PERCENT VOLATILE: 70

BOILING POINT: 100°C @ 760 mm Hg

FREEZING POINT: -2°C

SOLUBILITY IN WATER: Dispersible in water

EVAPORATION RATE: Not Determined

DENSITY: 9.66 Lbs/gal at 20°C

SPECIFIC GRAVITY: 1.16 to 1.18 gr/cc

10. STABILITY AND REACTIVITY

STABLE: YES

HAZARDOUS POLYMERIZATION: NO

HAZARDOUS DECOMPOSITION: May decompose under fire conditions emitting gases and vapors (i.e. hydrogen chloride) which may be toxic and irritating to the respiratory tract.

INCOMPATIBLE MATERIALS: Avoid contact with alkaline materials.

11. TOXICOLOGICAL INFORMATION

ACUTE

EYES: Eye irritant (rabbit and monkey); reversible corneal, iridal and conjunctival effects; maximum mean scores (noted at 24 hours): Rabbits - 23.3/110; Monkeys - 25.3/110. This product is considered to be a moderate to severe eye irritant. All irritation clearing by day 21. EPA FIFRA toxicity category - II.

DERMAL LD₅₀: Practically non-toxic, (Rat) LD₅₀ >5.8 gm/Kg; EPA FIFRA toxicity category - IV. Slightly irritating to skin (Rabbit); EPA FIFRA toxicity category - IV.

ORAL LD₅₀: This product is practically nontoxic if ingested. Rat LD₅₀ > 17.4 g/kg. EPA FIFRA toxicity category - IV.

INHALATION LC₅₀: This product if inhaled is practically nontoxic. 4 hour inhalation LC₅₀ for rats > 7.16 mg/liter. EPA FIFRA toxicity category - IV.

SENSITIZATION: Guinea pig - no evidence of allergic skin reactions.

GENERAL COMMENTS: This product contains chlorothalonil. The carcinogenic potential of technical-grade chlorothalonil (97%) has been tested in two rat studies and one mouse study. It was reported to cause an increased incidence of malignant and/or combined malignant and benign kidney tumors in both sexes in both rat studies and in male mice. In addition, increased incidences of malignant forestomach tumors were observed in both sexes of mice and in female rats in one study. Based on the results of these studies, chlorothalonil has been classified as a B2 carcinogen by the US EPA. There is no epidemiology data classifying chlorothalonil as a human carcinogen.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No data available.

ECOTOXICOLOGICAL INFORMATION: This material is toxic to aquatic organisms and should be kept out of sewage and drainage systems and all bodies of water.

13. DISPOSAL CONSIDERATIONS

FOR LARGE SPILLS: Material collected that cannot be reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, State or local procedures.

PRODUCT DISPOSAL: If necessary to dispose of partially filled product container, securely wrap it in several layers of newspaper and discard in trash.

EMPTY CONTAINER: Do not reuse container. Rinse thoroughly before discarding in trash.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)
PROPER SHIPPING NAME: Not Regulated
PRIMARY HAZARD CLASS/DIVISION: None
UN/NA NUMBER: NONE
PACKING GROUP: NO
U.S. SURFACE FREIGHT CLASS: Insecticides, Fungicides, Insect or animal repellents or vermin exterminators, NOI, Other than poison
AIR (ICAO/IATA)
PROPER SHIPPING NAME: Not Regulated
SPECIAL SHIPPING NOTES: The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

15. REGULATORY INFORMATION

UNITED STATES
SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

PRODUCT CLASSIFICATION UNDER SECTION 311 OF SARA				
ACUTE: YES	CHRONIC: YES	FIRE: NO	REACTIVITY: NO	PRESSURE GENERATING: NO

311/312 HAZARD CATEGORIES: Acute and chronic health.
313 REPORTABLE INGREDIENTS: Chlorothalonil
TSCA (TOXIC SUBSTANCE CONTROL ACT)
TSCA REGULATORY: All non FIFRA regulated components are on the US EPA's TSCA Inventory List.
STATE REGULATIONS
PROPOSITION 65 STATEMENT: Chlorothalonil is on the California Prop. 65 list. When this product is used according to the label directions, exposure and thus risk is below the level which requires a Prop 65 warning.

16. OTHER INFORMATION

HMIS CODES
FIRE: 0 **HEALTH:** 2 **REACTIVITY:** 0 **PROTECTION:** -
NFPA CODES
FIRE: 0 **HEALTH:** 2 **REACTIVITY:** 0 **SPECIAL:** -
APPROVAL DATE: 11/02/2000
REVISION SUMMARY Revision #: 3

This MSDS replaces the October 17, 2000 MSDS. Any changes in information are as follows:
In Section 4
Additional Information

In Section 6
General Procedures

In Section 11
Section 11 Footnotes

In Section 13
Product Disposal

In Section 16
Manufacturer Supplemental Notes Section 16 Footnotes

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